

## SAFETY DATA SHEET

Document number: QSI-6200-00-06

Date prepared: 2008/09/17

Date revised: 2012/9/14

Product name:

## 1. Chemical product and company identification

Product name:

Name of the supplier:

Address:

Charge section:

Emergency telephone  
number:

## 2. Hazards identification

GHS classification	[Category]
Acute toxicity, oral	Category 3
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 1
Hazardous to the aquatic environment, acute hazard	Category 3

GHS label elements

Pictograms:



Signal word:

Danger

Hazard statement:

Toxic if swallowed

Causes severe skin burns and eye damage

Causes serious eye damage

May damage fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

Harmful to aquatic life

Precautionary statements:

Prevention Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly hands and face after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

Response IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

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IF exposed or concerned: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
Storage Store locked up.  
Disposal Dispose of contents/container in accordance with  
local/regional/national/international regulation.

Specific hazards:

The dust can form an explosive mixture.  
The dust can be charged with static electricity.  
The product is a substance at the research and development stage  
and its danger/hazards information has not yet been obtained,  
therefore; take enough care for handling.  
When it is decomposed, it may emit hazardous gas of SO<sub>x</sub>, NO<sub>x</sub>, HF and  
so on.

**3. Composition/information on ingredients**

Substance or mixture:

Substance

Chemical name	Content wt. %	CAS number

**4. First-aid measures**

Inhalation:

Remove victim to fresh air and keep at rest in a position  
comfortable for breathing.

Skin contact:

Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all  
contaminated clothing. Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

Eye contact:

Wash the eyes with clean water for at least several minutes  
(desirably 15 minutes or longer), (Remove the contact lenses if  
possible.) and get medical attention by an eye specialist  
immediately. During washing, fully open the eyelid with fingers  
and wash in such a way as to let water reach to every corner of  
the eyeball and eyelid.

Ingestion:

Do not induce vomiting unless directed to do so by medical  
personnel. Never give anything by mouth to an unconscious person.  
Get medical attention immediately.

**5. Fire-fighting measures**

Extinguishing media:

Chemical powder extinguisher, aqueous liquid foam (alcohol  
resistance foam) fire extinguishing media, carbon dioxide, sand,  
atomized water.

Unsuitable extinguishing media:

No data available

Specific hazards:

At the time of fire, poisonous gases can be generated.

Specific extinguishing methods:

Keep upwind of fire. Wear full fire fighting turn-out gear (full  
Bunker gear) and respiratory protection (SCBA). Cool container  
with water spray.

Fight fire with normal precautions from a reasonable distance.

Precautions for fire-fighters:

During fire fighting work, wear proper protective equipment.

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**6. Accidental release measures**

Personal precautions, protective equipment and emergency procedures:	Promptly remove possible ignition sources from the vicinity.  Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Environmental precautions:	Do not flush to sewer or allow to enter waterways. Prevent scattering and spread by covering with antistatic sheet and the like.
Methods and materials for containment and cleaning up:	Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Eliminate all ignition sources. Use explosion-proof equipment. Dust can be a fire or explosion hazard. Vacuum or sweep material and place in a disposal container.

**7. Handling and storage**

Handling	
Technical measures:	During handling, be sure to wear proper protective equipment (refer to the section 8). Do not breathe dust. The dust can be charged with static electricity. Suppress generation and accumulation of dust as much as possible. Take countermeasures for static electricity removal (grounding, others). Wear antistatic clothes and antistatic shoes to prevent human body electrification. Use explosion-proof electrical/ventilating/lighting equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle the containers harshly in such a way as to make them tumbled, dropped, given a shock, or dragged.
Local/total ventilation:	Use the ventilation equipment described in Section 8.
Precautions:	Not especially.
Precautions for safe handling:	Not especially.
Storage	
Storage conditions:	Keep away from sources of ignition - No smoking. Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 ° C/122 ° F.
Packaging material:	Store in tightly closed container.

**8. Exposure controls and personal protection**

Engineering controls:	Install eye and body washing facilities near the handling place. Use closed equipment/machinery or use local ventilation equipment.
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## Permissible concentration

Chemical name	ACGIH (2009)	U. S. -OSHA (2009)
	TLV-TWA	PEL-TWA
	as Particles Not Otherwise Specified	as Particulates Not Otherwise Regulated
	Inhalable particles 10mg/m3	Total dust 15mg/m3

## Personal protective equipment

Respiratory protection: Dust mask, NIOSH certified particulate respirator  
 Hand protection: Rubber or polyethylene gloves  
 Eye protection: Protective glasses, goggle, protective face shield  
 Skin and body protection: Protective clothes, protective shoes (Antistatic ones are desirable.)

## 9. Physical and chemical properties

Physical state:  
 Form:  
 Color:  
 Odor:  
 Odor threshold:  
 pH:  
 Melting point/freezing point:  
 Boiling point, initial boiling point and Flashpoint:  
 Auto-ignition temperature:  
 Upper/lower flammability or explosive limits:  
 Vapor pressure:  
 Evaporation rate:  
 Specific gravity:  
 Solubility:  
  
 n-Octanol/water partition coefficient:  
 Decomposition temperature:

## 10. Stability and reactivity

Stability: This product is hygroscopic.  
 Hazardous reactions: Stable under normal handling conditions.  
 Conditions to avoid: High temperature, high humidity, direct sunlight  
 Incompatible materials: Acids, reducing agents, Oxidizing agents, Bases.  
 Hazardous decomposition products: Combustion gas can contain hazardous NO<sub>x</sub>, SO<sub>x</sub>, hydrogen fluoride gas.

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**11. Toxicological information**

Acute toxicity, oral:	LD50: 50-300 mg/kg[rat]
Acute toxicity, dermal:	No data
Acute toxicity, inhalation:	No data
Skin corrosion/irritation:	Corrosive [rabbit]
Specific target organ system toxicity (Repeated exposure):	NOEL: $\geq$ 30 mg/kg[rat(♂)]
Eye damage/irritation:	No data NOEL: $\geq$ 100 mg/kg[rat(♀)]
Sensitization, skin:	No data
Reproductive cell mutagenicity:	Ames Test:Negative Chromosome aberration test:Negative
Carcinogenicity:	No data
Reproductive toxicity:	No data Although there is no this product data, lithium is cited as a teratogen in "Chemically Induced Birth Defects" (reference-1 of a classifying guidelines). In "Catalog of Teratogenic Agents" (reference-2 of a classifying guidelines), plural cardiac abnormal deliveries of pregnant who take lithium are reported, suggesting teratogenicity in humans. It was considered as Category 1.
Aspiration hazard:	No data

**12. Ecological information**

Ecotoxicity	
Acute hazard (Fish):	LC50(96hr): > 100 mg/L[Oryzias latipes]
Acute hazard (Crustacea):	EC50(48hr): 71 mg/L[Daphnia magna]
Acute hazard (Algae or other aquatic plants):	No data
Acute hazard (Algae or other aquatic plants):	ErC50(0-72hr): > 100 mg/L[Green algae]
Long-term hazard (Algae or other aquatic plants):	NOEC: 50 mg/L[Green algae]
Persistence and degradability:	Not biodegradable
Bioaccumulative potential:	Not accumulated

**13. Disposal considerations**

Disposal methods:	When waste materials and waste water are to be treated, collect them into specified containers and entrust the disposal to a disposal contractor having an industrial waste disposal contractor permit. Do not use the used containers for other purposes like filling other substances. Be sure to dispose of them after treating the content according to the above description. Return a recycling container as it is after fitting a stopper without filling anything into it.
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**14. Transport information**

IMDG	UN classification :	Class8
	UN number :	1759
	Proper shipping name :	CORROSIVE SOLID, N. O. S
	Packing group :	II
Special precautions:	Transport the material in accordance with the regulations in your country or region. Load the containers in such a way as not to fall down, tumble, or being damaged. Cover the loaded cargo to prevent direct sunlight.	

**15. Regulatory information**

EU - REACH (1907/2006) :	Not applicable
U.S. - CERCLA/SARA :	Not applicable
U.S. - OSHA :	Not applicable
U.S. - TSCA (Toxic Substances Control Act) :	Not applicable
Inventory	
Japan (ENCS) :	Listed
Korea (KECL) :	Not listed
Australia (AICS) :	Not listed
Canada (DSL) :	Not listed
China (IECSC) :	Not listed
EU (EINECS) :	Not listed
New Zealand (NZIoC) :	Not listed
USA (TSCA) :	Not listed
Philippines (PICCS) :	Not listed
Registration	Not listed
EU (REACH) :	
Restriction at export (Japan) :	Not applicable

**16. Other information**

Disclaimer	<p>•The described information has been prepared based on the latest materials, information, and other data available at the time of preparation; however, it does not intend to guarantee anything like contents, physical/chemical properties, and danger/hazards. Also, the cautions have been prepared for ordinary handling; therefore, for special handling, it is the obligation of each user of the product to take proper measures suitable for each handling condition. Take enough care for such matters.</p> <p>•Concerning the GHS Classification described in Section 2, the health and environmental hazards are based on "Classification of chemicals based on GHS JIS Z7252:2009" and the physical hazards are based on "Globally Harmonized System of Classification and Labelling of Chemicals(GHS) third revised edition". The hazards not described there correspond to "Out of categories" or "Classification not possible".</p> <p>•Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.</p>
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